

ABSTRACT

The present invention is directed to provide a back illuminated photodetector having a sufficiently small package as well as being capable of suppressing the scattering of to-be-detected light. A back illuminated photodiode 1 comprises an N-type semiconductor substrate 10, a P⁺-type impurity semiconductor region 11, a recessed portion 12, a coating layer 13, and a window plate 14. In the surface layer on the upper surface S1 side of the N-type semiconductor substrate 10 is formed the P⁺-type impurity semiconductor region 11. In the rear surface S2 of the N-type semiconductor substrate 10 and in an area opposite the P⁺-type impurity semiconductor region 11 is formed the recessed portion 12 that functions as an incident part for to-be-detected light. Also, the coating layer 13 having a substantially flat surface is provided on the rear surface S2 of the N-type semiconductor substrate 10. Further, the window plate 14 is provided on the coating layer 13.